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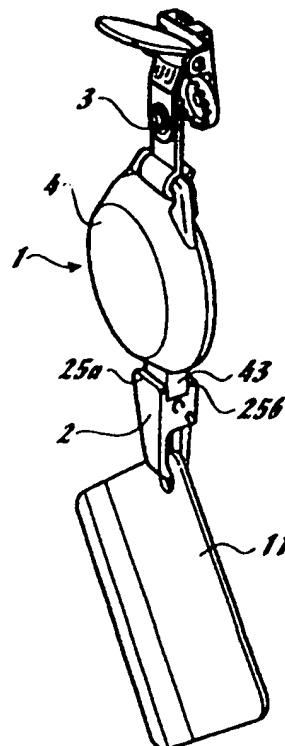
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(54) Title: ARRANGEMENT RELATED TO A CARD KEEPER

(57) Abstract

A device for holding a perforated object, for instance a perforated card or a key ring. The device includes a first holder unit for coaction with the perforated object, a second holder unit for coaction with a piece of clothing on the person carrying the object, and a reel or winder that acts between the two units. The reel includes a tongue-shaped protrusion from which the line can be fed out from and into the reel. The first holder unit includes a closable hasp which is intended for coaction with the hole in the perforated object. The second holder unit coacts with the reel or winder via a hooked part which is attached to an eyelet on the reel. Coaction between the second holder unit and said clothing is effected with the aid of a clamping device belonging to the second holder unit. The first holder unit includes first and second wing-like protrusions on opposite sides of the holder unit relative to the hasp. These wing-shaped protrusions are adapted so that the tongue-shaped protrusion can be embraced by the two wing-shaped protrusions when the line has been reeled-in, whereby the first holder unit is prevented from twisting or rotating about the axis of the line that extends between the reel and the first holder unit when the line has been taken-up by the reel.



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TITLE OF INVENTION: ARRANGEMENT RELATED TO A CARD KEEPER

10 FIELD OF INVENTION

The present invention relates to a device for holding a perforated object, such as a card provided with a hole or such as a key ring.

15 The device includes a first holder unit for coaction with the perforated object, a second holder unit for coaction with an article of clothing worn by the carrier of the object, and a reel or winder acting therebetween.

20 The reel or winder functions to allow line to which the first holder unit is attached to run from the reel when the line is subjected to a given force in a direction away from the reel, and to reel-in the line when no force acts on the line in a direction away from the reel. The reel includes a tongue-like protrusion from
25 which the line can be fed out of and into the reel.

The first holder unit includes a hasp which can be moved to an open position and a closed position and which coacts with the hole provided in the object, a two-part-locking element by means of
30 which the hasp can be locked in its closed position, and a through-penetrating hole through which the line can be passed and the outward end thereof tied into a knot large enough to prevent the line slipping back through the hole. A first part of the two-part-locking element is comprised of an outwardly projecting hasp-part,
35 and the second part of said two-part-locking element includes a cavity which is adapted to embrace the hasp-part in said closed position.

The second holder unit coacts with the reel or winder through the medium of a hooked part on the second holder unit, said hooked part coacting with an eyelet on the reel to provide a firm pivotal, but readily disconnectable connection. Coaction between the holder unit and said clothing is achieved through the medium of a clamping device belonging to the second holder unit.

DESCRIPTION OF THE BACKGROUND ART

It has long been known to use reels or winders of the aforescribed kind to hold bunches of keys and different types of card, for instance.

In the case of applications of this nature, there is used some form of hook which firmly grips the object to be held, and often some form of clip which holds the reel affixed to the wearer's clothing, for instance.

The reel includes a spring which can be adapted to function with objects of mutually different weight. A heavy bunch of keys will thus require a stronger spring than an identity card or a light key.

The holder or holder units used are often difficult to mould from a plastic material, since the units require many structural elements that are difficult to form in a simple mould.

DISCLOSURE OF THE PRESENT INVENTION

TECHNICAL PROBLEMS

When considering the earlier standpoint of techniques as described above concerning an arrangement that is intended to hold a perforated object, such as a perforated card or a key ring, and that comprises a first holder unit intended for coaction with said perforated object, a second holder unit intended for coaction with

clothing worn by the person carrying the object, and a reel or winder that acts therebetween, said reel functioning to allow a line to which the first holder unit is attached to run from the reel when the line is subjected to a given force in a direction away from the reel and to reel-in the line in the absence of said pulling force, said reel including a tongue-like protrusion from which the line can be fed out of and into the reel, and where the first holder unit includes a closable hasp intended for coaction with the hole provided in said object, said hasp being movable between an open position and a closed position, a two-part-locking element with which the hasp can be locked in said closed position, where a first part of said locking means is comprised of an outwardly projecting hasp-part and a second part of said locking means includes a cavity or hollow which is adapted to embrace the hasp-part in said closed position, and a through-penetrating hole through which the line can be passed and thereafter tied into a knot sufficiently large to prevent the line slipping back through the hole, it will be seen that a technical problem resides in realizing the possibilities that can be created to enable an object, e.g., a card, to be held in a fixed position relative to the reel or winder when the line has been reeled-in thereby.

Another technical problem resides in realizing how the first holder unit shall be constructed in order to prevent it from twisting or rotating about a the longitudinal axis of the line that extends between the reel and the first holder unit when line has been reeled into the reel housing, such as to fix the position of the object, such as an ID card, relative to said axis.

It will also be seen that a technical problem is one of realizing the importance of the direction in which the line extends from the first holder unit to the reel housing so as to ensure that an ID card or other object to which the line is attached will have a fixed position relative to said axis.

It will also be seen that a technical problem is one of realizing

how attachment of the line to the first holder unit via the through-penetrating hole can be implemented in a manner to ensure that the line will extend in a suitable direction from the first holder unit to the reel housing in a position in which it is firmly
5 locked to the first holder unit.

It will also be seen that a technical problem is one of realizing how such an attachment can be implemented in a manner which is beneficial both from a manufacturing aspect and from an economical
10 aspect.

Another technical problem is one of realizing how the two-part-locking element shall be constructed, and then particularly the cavity or hollow into which the hasp-part shall be locked, so as to
15 be beneficial from both a manufacturing and an economical aspect.

Another technical problem is one of realizing suitable dimensioning of the cavity or hollow to achieve a desired function of the locking means.
20

With a starting point from a device according to the foregoing, in which device the second holder unit carries a hooked-part which is pivotally attached to, but readily detachable from, an eyelet on the reel housing, and with which device coaction between the second
25 holder unit and said clothing is effected via a clamping device belonging to the second holder unit, it will be seen that a technical problem is one of realizing how the second holder unit shall be constructed to afford simple coaction with both the article of clothing and the reel housing.

It will also be seen that a technical problem resides in realizing how a hooked-part shall be constructed to enable it to be readily received by the eyelet and also to achieve effective but releasable locking of the eyelet to the hooked-part.
30

A further technical problem is one of realizing how coaction can be
35

implemented between the clamping device and a strip-like element that forms the base of the second holder unit.

5 It will also be seen that a technical problem is one of realizing how a first part of a coupling means that acts between the strip-like element and the clamping device can form an integral part of the strip-like element, where a second part of said coupling means is comprised solely of a hole in the clamping device.

10 A further technical problem is one of realizing how part of the strip-like element can function as an anvil or counterpressure means in coaction with a clamping part of the clamping device.

15 Another technical problem is one of realizing the advantages that are afforded when the first part of the coupling means and the anvil are able to coact with different types of clamping devices, such as a clip of the kind normally used with trouser braces, a braces-clip, and a crocodile clip.

20 A further technical problem is one of realizing how the aforescribed second holder unit shall be constructed to enable said unit to be produced in a manner that is beneficial both from a manufacturing and an economical aspect.

25 **SOLUTION**

30 With the intention of solving one or more of the aforesaid technical problems, the present invention relates to a device for holding a perforated object, for instance a perforated card or a key ring.

The device includes a first holder unit for coaction with the perforated object, a second holder unit for coaction with a piece of clothing on the person carrying the object, and a reel or winder
35 that acts between said units, said reel being constructed to allow a line to which the first holder unit is attached to run from the

reel when the line is subjected to an adapted force in a direction away from the reel, and to reel-in the line in the absence of said adapted force on the line. The reel includes a tongue-shaped protrusion from which the line can be fed out from and into the
5 reel.

The first holder unit includes a closable hasp which is intended to coact with the hole in the perforated object and which can be brought to a closed or to an open position. The hasp can be locked
10 in its closed position by means of a two-part locking element. This two-part locking element is comprised of a first part, an outwardly projecting hasp-part, and a second part that includes a hollow or recess adapted to embrace the hasp-part in the closed position of the hasp.

15 The first holder unit also includes a through-penetrating hole through which the line can be passed and thereafter knotted in a manner to prevent the line from slipping back through the hole.

20 The second holder unit coacts with the reel or winder via a hooked part on the second holder unit that can be firmly hooked pivotally to an eyelet on said reel and readily detached from said eyelet. Coaction between the second holder unit and said clothing is effected with the aid of a clamping device belonging to the second
25 holder unit.

With a starting point from a device of this kind and with the object of preventing the first holder unit from twisting or rotating about the longitudinal axis of that part of the line which
30 extends between the reel and the first holder unit when line is reeled-up by said reel, it is proposed in accordance with the invention that the first holder unit will include a body which has a first partition from which the hasp extends and bends back towards and up to a second partition of said body; in that an
35 extension of the hasp beyond the body forms a first wing-like protrusion on the opposite side of the body in relation to said

first partition; in that an extension of the second partition beyond said body forms a second wing-shaped protrusion on the opposite side of said body relative to said second partition; in that the distance between the first and the second wing-shaped protrusions is adapted so that the tongue-shaped protrusion can be embraced by the two wing-shaped protrusions when the line has been reeled-in; and in that said body forms an anvil or counterpressure means between said first and said second wing-shaped protrusions.

10 In coaction with the tongue-like protrusion, the wing-shaped protrusions prevent twisting or turning of the first holder unit and therewith fixing the position of the object.

15 It is important that the line extends in the correct direction from the first holder unit when reeling-in said line, so as to enable the wing-shaped protrusions to embrace or surround the tongue-shaped protrusion. In order for the line to extend in the correct direction, the line must pass at right angles from the anvil and also centrally from between the two wing-shaped protrusions. This
20 can be achieved by positioning the through-penetrating hole through which the line passes in said body at right angles to the extension of the hasp and centrally between the wing-shaped protrusions.

25 The hole will preferably consist of first and a second parts, where the first part of the hole extends from one side of the body and at an adapted distance from the centre of said body and has a conical shape with a larger cross-sectional area at the entry to the hole than at the end of the hole, and where the second part of said hole extends from the opposite side of the body and through a given
30 distance beyond the centre of the body and up to the proximity of the first part of said hole, and where the second part of the hole is straight and has a cross-sectional area that exceeds the cross-sectional area of the end of the first part of the hole. It is also proposed in accordance with the invention that the body also
35 includes between the hole and the anvil surface a through-penetrating slot which extends from the inlet to the first hole-

part and extends beyond the centre of the body to a given extent.

This provides a hole through which the line can be inserted from that side of the body in which the first hole-part is formed, without requiring the use of a tool to this end. The line is knotted at its free end and then drawn back into the hole, with the knot fastening in the end of the second hole-part and therewith prevented from slipping back through the hole. The knot is now located beneath the end of the slot and the line can thus be moved up through the slot so as to extend out from the first holder unit in a desired direction. With the line thus extended, the knot is pulled against the slot and the line will extend from the knot located beneath the slot and directly out of the slot, meaning that the knot will not fall back onto the first hole-part.

It is proposed in accordance with the present invention that the cavity included by the second part of the two-part locking device is formed by including said second part in said second partition. This second part of the two-part locking device shall include a first and a second wall element with respective wall elements extending from the second partition and out towards the rearwardly bent hasp-portion.

The first wall element has a first side that faces towards the first partition, and a second side that faces away from the first partition, and the second wall element is perpendicular to, or generally perpendicular to, the first wall element and side-related to the body. The second wall element also extends from the first wall element towards the first partition.

The cavity is formed by a hole formed through the second wall element, with the centre line of said hole coinciding with, or generally coinciding with, the surface of the first side of the first wall element.

The centre line of the hole extends perpendicular to the hasp

extension, and the hole extends through the second wall element and continues into the first wall element through a given distance.

The hole thus forms the cavity required in the first wall element.

5 The cavity is delimited on one side by the end of the hole and on the other side by the second wall element.

According to one embodiment of the invention, the extent to which the hole extends into the first wall element will slightly exceed
10 the width of the hasp-part.

The moulds required to mould a first holder unit according to the above description can be produced very easily and the unit can be moulded with great precision.

15

According to the invention, the second holder unit includes a strip-like element and said clamping device.

A first end of the strip-like element includes the hooked-part
20 adapted for coaction with the eyelet, and the other, the second, end of the strip-like element includes a first part of a two-part coupling device with which the clamping device can be connected to the strip-like element.

25 With the intention of providing a hooked-part that can be easily hooked firmly into the eyelet and which will later firmly lock the eyelet, it is proposed in accordance with the invention that the hooked-part bends back towards the first end of the strip-like element, where an outer portion of the hooked-part and the first
30 end of said strip-like element define the gape of the hook form.

The width of the gape is smaller than the cross-dimensional size of the eyelet, and consequently said outer portion is provided with a tongue that defines an angle with the strip-like element, said
35 angle being of a size that will allow the eyelet to be inserted between the tongue and the strip-like element.

The hooked-part is comprised of a resilient material that will enable the gape to be widened when pressing the eyelet in between the tongue and the strip-like element, therewith enabling the eyelet to be passed through the gape and into the hook form. This enables the eyelet to be readily inserted into the hooked-part.

The hooked-part has a circular or generally circular hook form, where the cross-sectional area of the circular shape exceeds the cross-sectional area of the eyelet.

The centre line of the strip-like element coincides with the centre of the circular shape.

The gape is offset in relation to the centre line and the circular shape is maintained past said centre line and up to that part of the gape that is formed by the first end of the strip-like element.

A hooked-part of this shape provides an opening that leads from within the hooked shape and out therefrom and that does not include any surfaces by means of which the gape can be readily pressed apart. In order to remove the eyelet from the hooked-part, it is necessary to actively turn and pull the reel and the eyelet relative to the second holder unit.

The first part of the coupling means includes an outwardly projecting portion and the clamping device is provided with a through-penetrating hole that constitutes a second part of the two-part coupling element. Coupling is effected by passing the outwardly projecting portion through the hole and then deforming the protruding part of said portion. The outwardly protruding part is deformed to present a cross-sectional area that exceeds the cross-sectional area of the hole, thereby fixing the clamping device to the strip-like element.

According to one embodiment of the invention, the strip-like element includes a protrusion which is positioned centrally of the

outwardly projecting part and on the opposite side of the strip-like element relative to said outwardly projecting part.

5 This very simple attachment of the clamping device to the strip-like element enables the clamping device to have the form of a braces-clip where a first jaw of the clip is provided with said hole.

10 A second jaw of the clip is provided with a circular toothed element where the protrusion is adapted to act as an anvil or counterpressure surface against the circular toothed element when the clamping device is connected to the strip-like element, with the braces-clip clipping around a piece of clothing on the person carrying the object, for instance.

15 The clamping device may alternatively have the form of a crocodile clip, with said hole provided in one jaw of the clip.

20 As with the braces-clip, the other jaw of the crocodile clip may be provided with a serrated part for clamping coaction with the user's clothing, for instance.

25 The moulds required to mould a strip-like element that includes a hooked-part in accordance with the foregoing can also be produced very easily and the strip-like element and hooked-part therewith moulded with great precision.

ADVANTAGES

30 Those advantages that are primarily characteristic of a first holder unit in accordance with the present invention reside in the ability to produce in a very simple and cost-effective manner a holder unit with which the position of the holder unit can be fixed in relation to the reel or winder when the line has been taken-up
35 by the reel. The invention also enables the parts that are required to provide a lockable hasp to be produced very easily. The

advantages that can be considered primarily characteristic of a second holder unit according to the present invention reside in the ability to provide in a simple manner a hooked-part to which the eyelet on the reel or winder can be readily attached and then
5 firmly secured in said hooked-part although still removable therefrom. According to the invention, there is provided a strip-like element that has an integrated outwardly projecting part to which different types of clamping devices or clips can be connected, simply by providing the clamping device with a hole of
10 a given size.

The primary characteristic features of an inventive device are set
15 forth in the characterizing clause of the following Claim 1.

BRIEF DESCRIPTION OF THE DRAWINGS

20

An inventive device will now be described in more detail with reference to exemplifying embodiments thereof and also with reference to the accompanying drawings, in which

25 Figure 1 is a perspective view of a card held by an inventive device;

Figure 2 is a perspective view that illustrates a reel or winder, a first holder unit, and a line connecting the reel and
30 unit together;

Figure 3 is a perspective view of a first holder unit and its respective components;

35 Figure 4 is a perspective view of a second holder unit that includes a braces-clip;

Figure 5 is a schematic illustration of a through-penetrating hole and a slot through the first holder unit, and shows a line fixed in said hole;

5 Figure 6 is a slightly enlarged view of part of a first holder unit and shows specifically a cavity formed in said first holder unit;

10 Figure 7 is a side view of a strip-like element that includes a hooked-part and included in a second holder unit; and

Figure 8 illustrates an alternative embodiment of a second holder unit that includes a crocodile clip.

15 **DETAILED DESCRIPTION OF EMBODIMENTS AT PRESENT PREFERRED**

Figure 1 illustrates a device 1 for holding a perforated object 11, such as a perforated card or a key ring. The illustrated object is a card.

20

The device includes a first holder unit 2 for coaction with the perforated object 11, a second holder unit 3 for coaction with clothing on the person carrying the object, and a reel or winder 4 acting between the two holder units.

25

As will be evident from Figure 2, the reel or winder 4 is constructed to allow a line 41 to which the first holder unit 2 is connected to run from the reel when subjected to a given force in a direction away from the reel, and to reel-in the line in the absence of this given force on the line. The reel includes a tongue-shaped projection 43 from which the line can be fed out of and into the reel.

30

As will be evident from Figure 3, the first holder unit 2 includes a closable hasp 21 which is intended for coaction with the hole in the perforated object 11 and which can be moved between an open and

35

a closed position.

The hasp can be locked in its closed position by means of a two-part locking element 22. A first part of the two-part locking element is comprised of an outwardly projecting hasp-part 22a, and a second part of said two-part locking element includes a cavity 22b which is intended to embrace the hasp-part 22a in the closed position of the hasp.

The first holder unit 2 further includes a through-penetrating hole 23 through which the line 43 can be passed and then tied into a knot at its free end so as to prevent the line slipping back through the hole.

As illustrated in Figure 4, the second holder unit 3 is able to coact with the reel or winder 4 through the medium of a hooked-part 31 on the second holder unit. This hooked-part can be brought into firm, pivotal engagement with an eyelet 42 on the reel or winder 4 and readily detached therefrom.

Coaction between the second holder unit 3 and clothing on the carrier is achieved through the medium of a clamping device belonging to the second holder unit 3, said device having the form of a braces-clip 32 in the illustrated case.

In the embodiment shown in Figures 2 and 3, the first holder unit 2 includes a body 24 that has a first partition 24a from which the hasp 21 extends and bends back towards and up to a second partition 24b of the body 24.

The hasp 21 continues beyond the body 24 and includes a first wing-shaped protrusion 25a on the opposite side of the body 24 relative to the first partition 24a of the body 24.

A second wing-shaped protrusion 25b is formed on the opposite side of the body 24 relative to the second partition 24b in an extension

of the second partition 24b beyond the body 24.

5 The distance "a" between the first and the second wing-shaped protrusions 25a, 25b is adapted so that the tongue-like protrusion 43 can be embraced by the two wing-shaped protrusions when the line is reeled into the reel or winder 4 (see Figure 1).

10 The body 24 forms an anvil or counterpressure surface 24c between the first and the second wing-shaped protrusions 25a, 25b, said anvil being that part of the body which supports against the tongue-shaped protrusion 43 when the line is reeled-in.

15 Because the wing-shaped protrusions embrace the tongue-like protrusion, the first holder unit is prevented from twisting or turning about the longitudinal axis A of that part of the line which extend between the reel and the first holder unit when the line has been taken-up by the reel.

20 As will be evident from Figure 5, the through-penetrating hole 23 through which the line 43 is passed extends through the body 24 at right angles to the extension of the hasp 21 and centrally between the wing-shaped protrusions 25a, 25b.

25 The hole is comprised of a first and a second hole-part 23a, 23b, of which the first hole-part 23a extends from one side of the body through a given distance towards the centre C of said body. This hole-part 23a has a conical shape with a larger cross-sectional area at the hole inlet than at the hole outlet.

30 The second hole-part 23b extends from the opposite side of the body through a given distance past the centre C and up to the first hole-part 23a. The second hole-part 23b is straight and has a cross-sectional area that is greater than the cross-sectional area of the end of the first hole-part 23a.

35

The body includes a through-penetrating slot 26 which extends

between the hole 23 and the anvil 24c, from the inlet of the first hole-part 23a through a given distance beyond the centre C of the body.

5 A knot 43a tied on the line 43 will lie directly beneath the end of the slot 26, in the centre C of the body 24, and fixed at the end of the second hole-part 23b. The line 43 can therewith be stretched perpendicularly from the anvil 24c, directly out from the underlying knot 43a.

10

Figure 6 is an enlarged view of the second partition 24b, which includes the second part of the two-part locking element 22. This part includes a first and a second wall element 27a, 27b, wherein respective wall elements extend from the second partition 24b out
15 towards the back-folded hasp-part 21a.

The first wall element 27a has a first side 27a1 which faces towards the first partition 24a, and a second side 27a2 which faces away from the first partition 24a.

20

The second wall element 27b is perpendicular, or generally perpendicular, to the first wall element 27a and off-centre or side-related to the body 24. The second wall element 27b also extends from the first wall element 27a towards the first partition
25 24a.

25

The cavity 22b in the second partition is formed by a hole 22c which is formed through the second wall element 27b and has a centre line B that coincides with, or generally coincides with, the
30 surface of the first side 27a1 of the first wall element 27a.

30

The centre line B is perpendicular to the extension of the hasp 21 and the hole extends through the second wall element 27b and continues into the first wall element 27a through a given distance
35 "b".

35

The distance "b" through which the hole 22c extends into the first wall element 27a slightly exceeds the width of the hasp-part 22a.

5 The hole 22c thus forms the cavity 22b required in the first wall element 27a. The cavity 22b is delimited on one side by the end 22c' of the hole and on the other side by the second wall element 27b.

10 The second holder unit 3 includes a strip-like element 33 and the clamping device 32.

Figure 7 shows the strip-like element 33 without the clamping device. The hooked-part 31 adapted for coaction with the eyelet is provided on a first end 33a of the strip-like element 33.

15 A second end 33b of the stripe-like element 33 is provided with a first part of a two-part couple element, whereby the clamping device can be coupled to the strip-like element 33.

20 The hooked-part 31 is adapted to bend back towards the first end 33a of the strip-like element 33, where an outer part 31a of the hooked-part 31 and the first end 33a of the strip-like element 33 define a gape or "mouth" 34 that leads into the hook-shape 31. The width of the gape is smaller than the cross-sectional size of the
25 eyelet.

The outer part 31a includes a tongue 35 which defines an angle " α " with the strip-like element 33, said angle " α " having a size which enables the eyelet to be inserted between the tongue 35 and the
30 strip-like element 33.

The hooked-part 31 is made of a resilient material such as to enable the gape 34 to be widened when pressing the eyelet in between the tongue 35 and the strip-like element 33, thereby
35 enabling the eyelet to be inserted through the gape 34 and into the hook-shape 31.

The hooked-part 31 has a broken, but generally circular shape 31' and the cross-sectional area of the hook is greater than the cross-sectional area of the eyelet.

5 The centre line D of the strip-like element 33 coincides with a centre line E on the circular shape 31' and the gape 34 is located to one side of said centre line D. The circular shape 31' of the hooked-part 31 continues beyond the centre line D and up to that part of the gape 34 which is defined by the first end 33a of the
10 strip-like element 33.

A hooked-part 31 of this configuration forms in the circular shape or form 31' an opening 36 through which the eyelet can pass from within and out of the hook and which lacks any surfaces that can be
15 easily pressed apart so as to widen the opening 36, and consequently the reel and the eyelet must be actively twisted and pulled relative to the second holder unit in order to remove the eyelet out of the hooked-part.

20 The first part of the two-part coupling element for coupling the strip-like element to the clamping device includes an outwardly projecting part 37, and the clamping device is provided with a through-penetrating hole 32a that constitutes the second part of said two-part coupling element.

25 As will be evident from Figure 4, the first and the second part are connected by passing the outwardly projecting part 37 through the hole 32a and then deforming the outwardly projecting part 37, e.g. in the manner of a riveting operation.

30 The part 37 can be deformed mechanically or by melting said part.

The outwardly projecting part 37 will be deformed to a cross-sectional size that exceeds the cross-sectional size of the hole
35 32a, therewith fixing the clamping device 32 to the strip-like element 33.

The strip-like element 33 also includes a projection 38 which lies opposite the outwardly projecting part 37 and on the side of the strip-like element 33 opposite thereto.

- 5 The clamping device may have many different forms. Figure 4 shows a preferred embodiment of the clamping device, which in this case is comprised of a braces-clip 32 where a first jaw 32b of the clip 32 is provided with said hole 32a. A second jaw 32c of the clip 32 includes a toothed circular element 32d. When connecting the
- 10 clamping device 32 to the strip-like element 33, the projection 38 functions as an anvil surface against the toothed ring 32d when the clip 32 is clipped onto clothing on the person carrying the device, for instance.
- 15 Figure 8 shows an alternative embodiment in which the clamping device is a crocodile clip 32', with said hole 32a' being provided in a first jaw 32b' of the clip. The second jaw 32c' of the clip 32' is provided with a gripping part, such as a serrated part 32d'. When connecting the clamping device to the strip-like element, the
- 20 protrusion 38' functions as an anvil surface against the serrated part 32d' when the crocodile clip 32' is used to secure the device to the clothing of a person carrying said device.

It will be understood that the invention is not restricted to the

25 illustrated and described embodiment thereof and that modifications can be made within the scope of the following Claims.

CLAIMS

1. A device for holding a perforated object, for instance a perforated
card or a key ring, said device including a first holder unit for
5 coaction with the perforated object, a second holder unit for
coaction with a piece of clothing on the person carrying the
object, and a reel or winder that acts between said units, said
reel being constructed to allow a line to which the first holder
unit is attached to run from the reel when the line is subjected to
10 a given force in a direction away from the reel, and to take-up the
line in the absence of said given force on the line, wherewith the
reel includes a tongue-shaped protrusion from which the line can be
fed out from and into the reel, wherewith the first holder unit
includes a closable hasp which is intended for coaction with the
15 hole in the perforated object and which can be brought to a closed
or to an open position, a two-part locking element by means of
which the hasp can be locked in its closed position, where a first
part is comprised of an outwardly projecting hasp-part and where a
second part includes a hollow or cavity adapted to embrace the
20 hasp-part in the closed position of the hasp, and further includes
a through-penetrating hole through which the line can be passed and
thereafter knotted in a manner to prevent the line from slipping
back through the hole, wherein the second holder unit coacts with
the reel or winder via a hooked part on the second holder unit that
25 can be firmly hooked pivotally to an eyelet on said reel and
readily detached from said eyelet, and with which device the
coaction between the second holder unit and said clothing is
effected with the aid of a clamping device belonging to the second
holder unit, characterized in that the first holder unit includes
30 a body which has a first partition from which the hasp extends and
bends back towards and up to a second partition of said body; in
that an extension of the hasp beyond the body forms a first wing-
like protrusion on the opposite side of the body in relation to
said first partition; in that an extension of the second partition
35 beyond said body forms a second wing-shaped protrusion on the
opposite side of said body relative to said second partition; in

that the distance between the first and the second wing-shaped protrusions is adapted so that the tongue-shaped protrusion can be embraced by the two wing-shaped protrusions when the line has been reeled-in; and in that said body forms an anvil or counterpressure means between said first and said second wing-shaped protrusions, whereby said first holder unit is thus prevented from twisting or rotating about an axis of the line extension between said reel and said first holder unit when the line has been taken-up by said reel.

2. A device according to Claim 1, characterized in that said body contains the through-penetrating hole through which the line is passed; in that said hole extends perpendicularly to the extension of said hasp and centrally between said wing-shaped protrusions; in that said hole is comprised of a first and a second hole-part; in that said first hole-part extends from one side of said body through a given distance towards the centre of said body; in that said first hole-part has a conical shape with a larger cross-sectional area at the hole entrance than at the hole exit; in that said second hole-part extends from the opposite side of the body through a given distance beyond the centre of said body and up to said first hole-part; in that said second hole-part is straight and has a cross-sectional area that is greater than the cross-sectional area at the end of said first hole-part; and in that said body includes a through-penetrating slot between said hole and said anvil surface, said slot extending from the entrance to the first hole-part and through a given distance beyond the centre of said body.

3. A device according to Claim 1, characterized in that said second partition includes the second part of said two-part locking element, which includes a first and a second wall element; in that respective wall elements extend from said second partition out towards said backwardly bent hasp-part; in that said first wall element has a first side that faces towards said first partition and a second side which faces away from said first partition; in

that said second wall element is perpendicular to, or generally perpendicular to, said first wall element and off-centre or side-related to said body; in that said second wall element extends from said first wall element towards said first partition; in that said
5 cavity in said second partition is formed by a hole formed through said second wall element, said hole having a centre line that coincides with, or generally coincides with, the surface of said first side of said first wall element; in that said centre line extends perpendicularly to the extension of said hasp; and in that
10 said hole extends through said second wall element and continues into the first wall element through a given distance.

4. A device according to Claim 3, characterized in that the distance through which the hole extends into said first wall
15 element slightly exceeds the width of said hasp-part.

5. A device according to the preamble of Claim 1, characterized in that said second holder unit includes a strip-like element and said clamping device; in that a first end of the strip-like element
20 includes a hooked-part intended for coaction with said eyelet; and in that a second end of said strip-like element includes a first part of a two-part coupling element for connection of the clamping device to said strip-like element.

6. A device according to Claim 5, characterized in that said
25 hooked-part bends back towards said first end of said strip-like element; in that an outer part of said hooked part and said first end of said strip-like element define therebetween a gape in said hooked-part; in that the cross-sectional area of the gape is
30 smaller than the cross-sectional area of the eyelet; in that said outer part includes a tongue which defines with said strip-like element an angle that will permit the eyelet to be inserted between said tongue and said strip-like element; and in that said hooked-part is made of a resilient material that will enable the gape to
35 be widened when pressing the eyelet in between the tongue and the strip-like element, thereby enabling the eyelet to be inserted

through said gaps and into the hook.

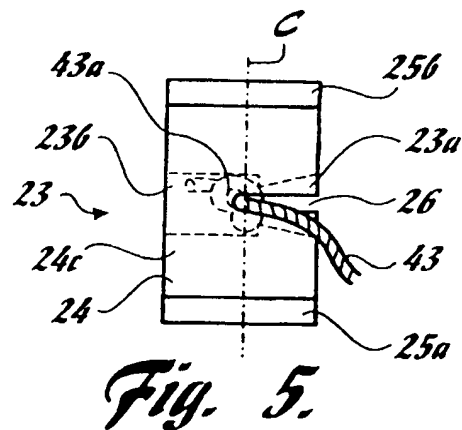
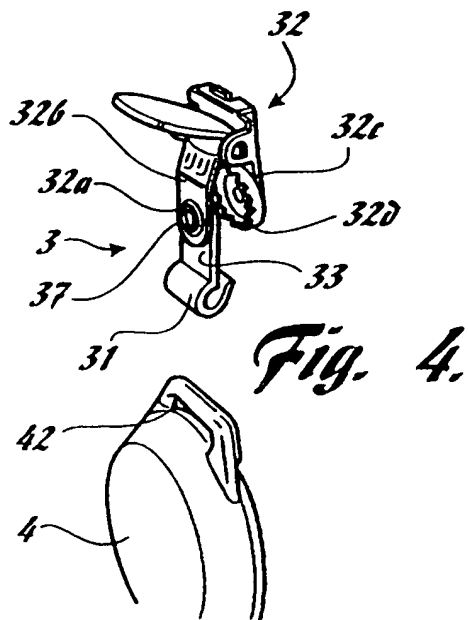
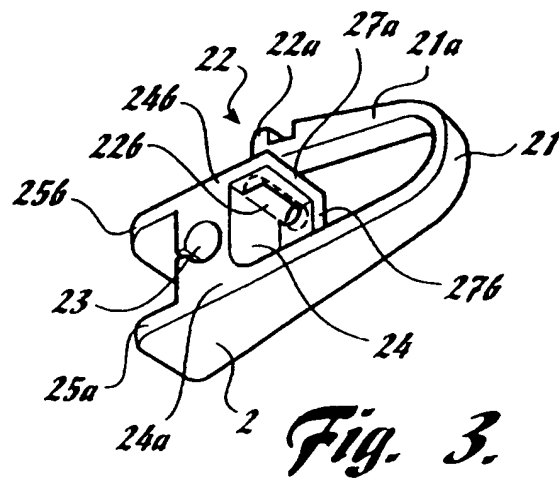
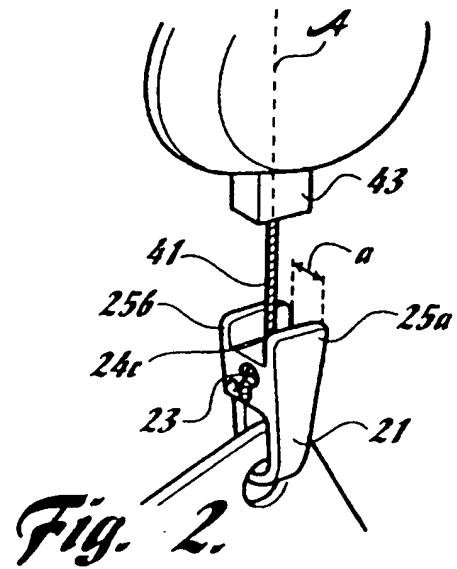
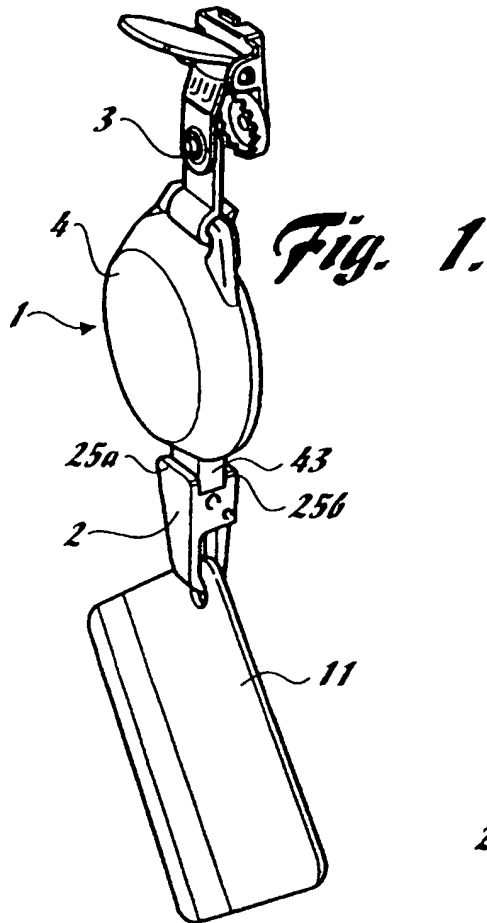
7. A device according to Claim 5 and Claim 6, characterized in that the hooked-part has a circular, or substantially circular but discontinuous shape; in that the cross-sectional area of said circular shape is greater than the cross-sectional area of said eyelet; in that a centre line on said strip-like element coincides with a centre of said circular shape; in that said gape is positioned to one side of the centre line; in that said circular shape is maintained beyond said centre line and up to that part of said gape defined by the first end of said strip-like element.

8. A device according to Claim 5, characterized in that the first part of the two-part coupling element includes an outwardly projecting part; in that said clamping device includes a through-penetrating hole that constitutes the second part of said two-part coupling element; and in that said connection is made by passing said outwardly projecting part through said hole and thereafter deforming said outwardly projecting part to a cross-sectional size that is larger than the cross-sectional size of said hole, thereby fixing said clamping device to said strip-like element.

9. A device according to Claim 5 and Claim 6, characterized in that said strip-like element includes a protrusion; in that said protrusion is located opposite the outwardly projecting part and on the side of said strip-like element opposite to the side carrying said outwardly projecting part.

10. A device according to Claim 5, 8 and 9, characterized in that the clamping device is a braces-clip; in that said hole is provided in a first clip jaw; in that a second clip jaw includes a circular toothed part; and in that when connecting said clamping device to said strip-like element, the protrusion is intended to function as an anvil surface against said circular toothed part as the clip clamps around a piece of clothing on the person carrying the device, for instance.

11. A device according to Claim 5, 8 and 9, characterized in that the clamping device is a crocodile clip; in that said hole is provided in a first clip jaw; in that a second clip jaw is provided with a serrated part; and in that when connecting the clamping
5 device to said strip-like element the protrusion functions as an anvil surface against said serrated part when the clip grips around clothing on a person carrying the device, for instance.



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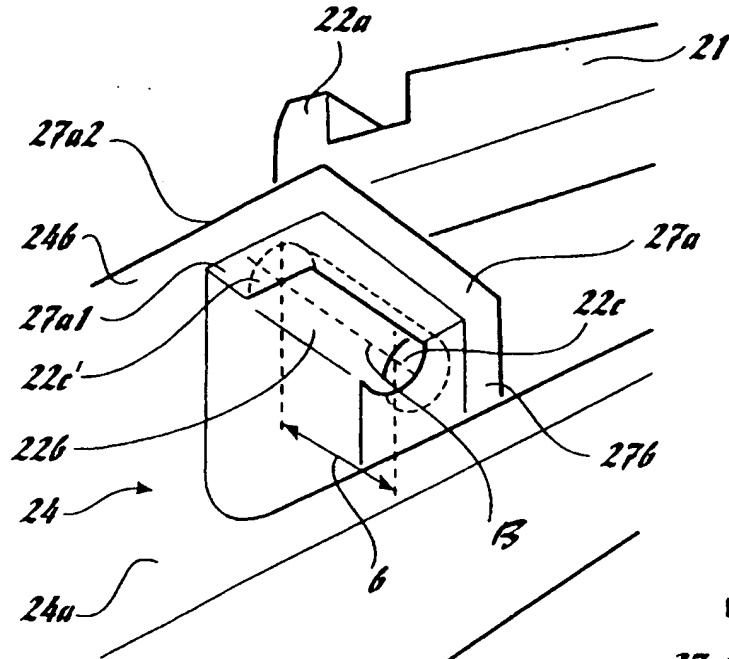


Fig. 6.

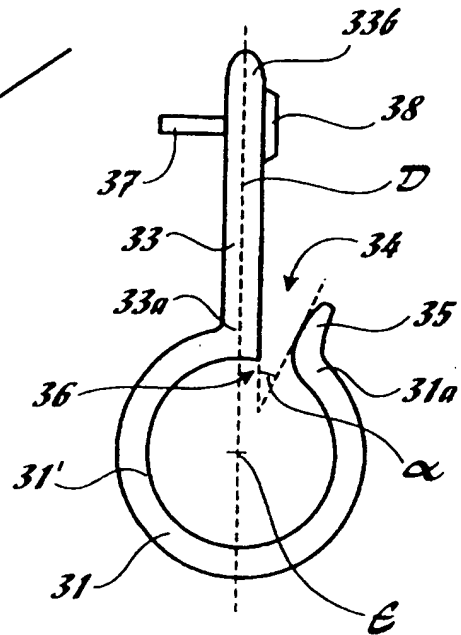


Fig. 7.

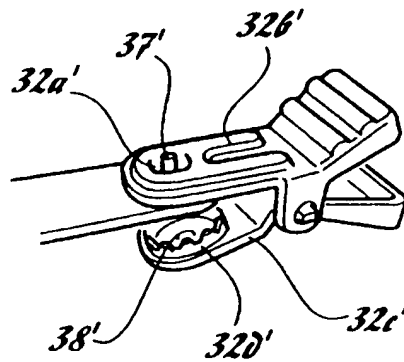


Fig. 8.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 97/00778

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: A45F 5/02, A44B 15/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: A44B, A45C, A45F, G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0264086 A2 (SKIDATA COMPUTERHANDELSGESELLSCHAFT M.B.H.), 20 April 1988 (20.04.88), page 3, line 35 - line 37, figures	5-11
A	--	1-4
Y	DE 4226341 A1 (ADRIAN, DESIREE), 10 February 1994 (10.02.94)	5-11
A	--	1-4
Y	CH 637278 A5 (G. PELZ), 29 July 1983 (29.07.83)	5-11
A	--	1-4

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 97/00778

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 5564166 A (A.E. ROY), 15 October 1996 (15.10.96), figures 1-11, abstract	5-11
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INTERNATIONAL SEARCH REPORT
Information on patent family members

06/08/97

International application No.

PCT/SE 97/00778

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EP	0264086	A2	20/04/88	SE 0264086 T3 AT 384937 A,B DE 3788619 D DE 8717754 U	25/01/88 00/00/00 11/01/90

DE	4226341	A1	10/02/94	NONE	

CH	637278	A5	29/07/83	DE 7918477 U	21/02/80

US	5564166	A	15/10/96	NONE	
